

CLAIMS

What I claim is:

1. In an improved first aerostabilizer for vehicles that is capable of changing to a more vertical position when the vehicle is decelerated to thereby add an aerodynamic braking force that aids in slowing down the vehicle, the improvement comprising:
a motor in communication with the first aerostabilizer wherein said motor provides an actuation force when a brake of said vehicle is applied, said actuation force causes a movement of the first aerostabilizer about a pivot resulting in a raising of one end of the first aerostabilizer higher than another end of said first aerostabilizer such that said first aerostabilizer is at a more vertical than horizontal orientation to thereby provide the aerodynamic braking force.
2. The improved first aerostabilizer of claim 1 which further comprises a second aerostabilizer in communication with the first aerostabilizer and wherein said second aerostabilizer moves with the first aerostabilizer.
3. The improved first aerostabilizer of claim 1 which further comprises a second aerostabilizer that is, at least partially, independent of movement of the first aerostabilizer.
4. The improved first aerostabilizer of claim 1 wherein the pivot is disposed proximal an average fore to aft mid-point of the first aerostabilizer.

5. The improved first aerostabilizer of claim 1 wherein the pivot is disposed within fifteen percent of a midpoint of an average fore to aft length of the first aerostabilizer.
6. The improved first aerostabilizer of claim 1 wherein the pivot is disposed within thirty percent of a midpoint of an average fore to aft length of the first aerostabilizer.
7. The improved first aerostabilizer of claim 1 wherein the pivot is disposed within forty-five percent of a midpoint of an average fore to aft length of the first aerostabilizer.
8. The improved first aerostabilizer of claim 2 wherein the pivot is disposed approximate an average of an algebraic sum of fore to aft lengths and spacings of the first and second aerostabilizers.
9. The improved first aerostabilizer of claim 2 wherein the pivot is disposed within fifteen percent of a midpoint of an algebraic sum of fore to aft lengths and spacings of the first and second aerostabilizers.
10. The improved first aerostabilizer of claim 2 wherein the pivot is disposed within thirty percent of a midpoint of an algebraic sum of fore to aft lengths and spacings of the first and second aerostabilizers.
11. The improved first aerostabilizer of claim 2 wherein the pivot is disposed within forty-five percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the first and second aerostabilizers.

12. The improved first aerostabilizer of claim 1 which further comprises one or more additional aerostabilizers in communication with and move when the first aerostabilizer moves.
13. The improved first aerostabilizer of claim 12 wherein the pivot is disposed within fifteen percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the aerostabilizers.
14. The improved first aerostabilizer of claim 12 wherein the pivot is disposed within thirty percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the aerostabilizers.
15. The improved first aerostabilizer of claim 12 wherein the pivot is disposed within forty-five percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the aerostabilizers.
16. The improved first aerostabilizer of claim 1 wherein the motor is powered by electricity.
17. The improved first aerostabilizer of claim 1 wherein the motor is an electric linear actuator motor.
18. The improved first aerostabilizer of claim 16 wherein communication means of said motor with the first aerostabilizer includes a first gear.
19. The improved first aerostabilizer of claim 16 wherein communication means of said motor with the first aerostabilizer includes a second gear.
20. The improved first aerostabilizer of claim 1 wherein said motor is disposed, at least in part, internal to the first aerostabilizer.

21. The improved first aerostabilizer of claim 20 wherein a shaft of the motor is parallel to a longitudinal axis of the first aerostabilizer.
22. The improved first aerostabilizer of claim 1 wherein a shaft of the motor is perpendicular to a longitudinal axis of the first aerostabilizer.
23. The improved first aerostabilizer of claim 1 wherein said motor is disposed, at least partially, internal to a first stanchion and wherein said first stanchion is disposed between the first aerostabilizer and an attachment means on the vehicle.
24. The improved first aerostabilizer of claim 23 which further includes a second stanchion with said first and said second stanchion in communication by a connecting structure where said connecting structure is disposed, at least primarily, below the first aerostabilizer and above the attachment means on the vehicle.
25. The improved first aerostabilizer of claim 21 wherein a vehicle stoplight is mounted to said connecting structure.
26. In an improved first aerostabilizer for vehicles that is capable of changing to a more vertical position when the vehicle is decelerated to thereby add an aerodynamic braking force that aids in slowing down the vehicle, the improvement comprising:
- an electric linear actuator motor in communication with the first aerostabilizer wherein said motor provides an actuation force when a brake of said vehicle is applied, said actuation force causes a movement of the first aerostabilizer about a pivot resulting in a raising of one end of the

first aerostabilizer higher than another end of said first aerostabilizer such that said first aerostabilizer is at a more vertical than horizontal orientation to thereby provide the aerodynamic braking force.

27. In an improved first aerostabilizer for vehicles that is capable of changing to a more vertical position when the vehicle is decelerated to thereby add an aerodynamic braking force that aids in slowing down the vehicle, the improvement comprising:

a motor in communication with the first aerostabilizer wherein said motor provides an actuation force when a brake of said vehicle is applied, said actuation force causes a movement of the first aerostabilizer about a pivot resulting in a raising of one end of the first aerostabilizer higher than another end of said first aerostabilizer such that said first aerostabilizer is at a more vertical than horizontal orientation to thereby provide the aerodynamic braking force.

28. The improved first aerostabilizer of claim 27 wherein the electric motor includes a speed reducing gear.

29. The improved first aerostabilizer of claim 27 wherein communication means between said electric motor and said first aerostabilizer includes one or more gears.

30. In an improved first aerostabilizer for vehicles that is capable of changing to a more vertical position, the improvement comprising:
an electric motor in communication with the first aerostabilizer wherein said motor provides an actuation force when electric power is supplied to

said electric motor to thereby provide means to adjust the orientation of the first aerostabilizer about a pivot resulting in a raising of one end of the first aerostabilizer higher than another end of said first aerostabilizer such that said first aerostabilizer is at a more vertical than horizontal orientation.

31. The improved first aerostabilizer of claim 30 wherein the pivot is disposed proximal a midpoint between fore and aft of the first aerostabilizer.